CLAIMS

1. An inkjet print device which prints by reciprocally moving a carriage carrying a print head in a main scan direction while controlling ink ejection from the print head according to a carriage position both in a forward movement and in a return movement,

said device comprising:

position sensing means for sensing the carriage position;

speed sensing means for sensing moving speed of the carriage;

correction quantity determining means for presetting a relationship between the moving speed of the carriage and a positional correction quantity for correcting a discrepancy in an ink hitting position resulting from the ink ejection from the print head while the carriage is moving and for determining the positional correction quantity from the moving speed of the carriage sensed by the speed sensing means according to the preset relationship; and

ejection control means for controlling the ink ejection from the print head according to the positional correction quantity determined by the correction quantity determining means and the carriage position sensed by the position sensing means.

2. The inkjet print device as set forth in claim 1, wherein

the correction quantity determining means is activated at least when the carriage is either accelerating or decelerating.

3. The inkjet print device as set forth in claim 1, wherein

the positional correction quantity is a difference of the ink hitting position from a position of the ink ejection from the print head.

4. The inkjet print device as set forth in claim 1, wherein:

the positional correction quantity is a difference between an ink hitting position in the forward movement and an ink hitting position in the return movement related to a certain ink eject position of the print head; and

the ejection control means controls ink ejection with the positional correction quantity being 0 in either one of the forward movement and the return movement.

5. The inkjet print device as set forth in claim 1, wherein

the relationship between the moving speed of the carriage and the positional correction quantity is a proportional relationship.

6. The inkjet print device as set forth in claim 5, wherein

the correction quantity determining means prestores a certain moving speed of the carriage and a positional correction quantity at that moving speed as a reference carriage speed V0 and also prestores a reference positional correction quantity dX0 respectively and determines the positional correction quantity dX(t) from the moving speed V(t) of the carriage sensed by the speed sensing means as given by an equation:

$$dX(t) = dX0 \times V(t)/V0.$$

7. The inkjet print device as set forth in claim 5, wherein

the correction quantity determining means prestores a correction quantity table representing a relationship between multiple speeds of the carriage and multiple positional correction quantities and determines the positional correction quantity from the moving speed of the carriage sensed by the speed sensing means in reference to the correction quantity table.

8. The inkjet print device as set forth in claim 1, wherein:

the position sensing means contains an encoder producing a pulse signal output according to a displacement of the carriage;

the speed sensing means contains time measurement means for measuring a cycle of the pulse signal output from

the encoder; and

the correction quantity determining means presets a relationship between the cycle of the pulse signal output and the positional correction quantity and determines the positional correction quantity from the cycle of the pulse signal output measured by the time measurement means according to the preset relationship.

9. The inkjet print device as set forth in claim 8, wherein

the relationship between the cycle of the pulse signal output and the positional correction quantity is an inversely proportional relationship.

10. The inkjet print device as set forth in claim 9, wherein

the correction quantity determining means prestores the cycle, T0, of the pulse signal output at a certain speed V0 of the carriage and also prestores the positional correction quantity dX0 and determines the positional correction quantity dX(t) from the cycle, T(t), of the pulse signal output measured by the time measurement means in the speed sensing means as given by an equation:

$$dX(t) = dX0 \times T0/T(t).$$

11. The inkjet print device as set forth in claim 9, wherein

the correction quantity determining means prestores a

correction quantity table representing a relationship between multiple cycles of the pulse signal output and multiple positional correction quantities and determines the positional correction quantity from the cycle of the pulse signal output measured by the time measurement means in the speed sensing means in reference to the correction quantity table.

12. The inkjet print device as set forth in claim 8, further comprising position details sensing means for dividing the cycle of the pulse signal output time-measured by the time measurement means and counting every time the divided cycle elapses so as to sense position details of the carriage.

13. The inkjet print device as set forth in claim 12, wherein:

the time measurement means obtains the cycle of the pulse signal output as digital data; and

the position details sensing means divides the cycle of the pulse signal output time-measured by the time measurement means by shifting data of the cycle of the pulse signal output toward the right by a predetermined number of times.

14. The inkjet print device as set forth in claim 12, wherein:

the position sensing means contains approximate position sensing means for measuring a number of pulses of

the pulse signal output from the encoder to sense an approximate position of the carriage; and

a combined value of a count by the approximate position sensing means as high order digits and a count by the position details sensing means as low order digits is the carriage position.

15. An inkjet print method for an inkjet print device which prints by reciprocally moving a carriage carrying a print head in a main scan direction while controlling ink ejection from the print head according to a carriage position both in a forward movement and in a return movement, said device containing: position sensing means for sensing the carriage position; and speed sensing means for sensing moving speed of the carriage,

said method comprising:

the relationship setting step of presetting a relationship between the moving speed of the carriage and a positional correction quantity for correcting a discrepancy in an ink hitting position resulting from the ink ejection from the print head while the carriage is moving;

the correction quantity determining step of determining the positional correction quantity from the moving speed of the carriage sensed by the speed sensing means according to the relationship preset in the relationship setting step;

the ejection control step of controlling the ink ejection from the print head according to the positional correction quantity determined in the correction quantity determining step and the carriage position sensed by the position sensing means.

16. An inkjet print program for causing the inkjet print device as set forth in any one of claims 1 through 14 to operate, wherein the program causes the computer to function as the correction quantity determining means and the ejection control means.

17. A computer-readable storage medium containing the inkjet print program as set forth in claim 16.